



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date:

Project End Date:

Permit Number:

FPA/Public Notice Number: N/A

Application ID: 902

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Yakama Nation ATTENTION: JoDe Goudy PO Box 151 Toppenish, WA 98948-0151	Yakama Nation Fisheries ATTENTION: Kelly Clayton PO Box 151 Toppenish, WA 98948

Project Name: Big Creek Fish Passage Project

Project Description: An existing concrete slab perched about 3' above stream bottom creates a 3'-high waterfall impassable to any fish except adult salmon during moderate to high flows. A roughened channel 120'-long at 5.0% slope is proposed to provide unrestricted upstream fish passage for all native species and all fish life-stages, to at least 15 miles of stream habitat currently inaccessible to most fish. The roughened channel design would meet guidelines published in WDFW's 2013 Water Crossing Design Guidelines. The roughened channel would convey all streamflows, flood flows, bedload transport, and large wood downstream in a near-natural manner.

PROVISIONS

1. 1. TIMING LIMITATIONS: Work on this project below the ordinary high water mark may begin September 6, 2014 and shall be completed by October 31, 2014.

NOTIFICATION REQUIREMENT

2. The permittee or contractor shall notify the Department field office, phone (509) 925-1013, FAX (509) 925-4702, or email brent.renfrow@dfw.wa.gov, at least 48-hours prior to starting in-channel work on this project. Leave message for Brent Renfrow, Assistant Habitat Program Manager. The notification shall include the permittee's name, project location, starting date for work, and the control number for this Hydraulic Project Approval (HPA).

DESIGN STANDARD

3. The in-channel fishway (i.e. roughened channel), shall be designed and constructed to maintain structural integrity to the 100-year peak flow with consideration of the ice, debris, and bedload likely to be encountered.

GENERAL

4. Work shall be accomplished per plans dated August 2014 and entitled Big Creek Fish Passage Project – Yakama Indian Nation, and the design information submitted to Washington Department of Fish and Wildlife (WDFW) except as modified by this Hydraulic Project Approval (HPA). A copy of the plans, specifications and this HPA shall be available on-site during construction.

5. Disturbance of the creek channel and shoreline vegetation shall be limited to the minimum necessary to construct the project.

6. Work shall be done with care to minimize discharge of earth and fine sediment to the flowing water of the creek. Temporary run-off and erosion control measures (BMPs) shall be installed as needed to prevent discharge of earth and fine sediment from the work area to the flowing water of Big Creek.



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7. Permittee shall have spill cleanup materials (including absorbent pads and containment boom) available on site. Boom kit shall be pre-positioned immediately downstream of the work area and have enough boom materials to span the entire channel.

8. Pumps, sandbags, and plastic sheeting material shall be available on site for emergency routing and/or containment of water and pollutants whenever work is being performed in the channel.

REQUIRED SUBMITTALS

9. Prior to commencement of work within the ordinary high water line, the permittee shall provide WDFW with: a) a complete set of construction plans and specifications, and b) a copy of the construction schedule.

STAKING AND MARKING

10. The project shall be clearly marked or staked prior to construction. Clearing limits, stockpile areas, travel corridors in the shoreline, channel access routes for equipment, and waste water disposal sites shall be marked so as to be clearly visible to equipment operators.

WORKSITE LIMITATIONS

11. All in-channel work shall be done during a period of low stream flow, when all flow can be routed around the work area in temporary flow bypass facilities.

12. Work area containment and a temporary stream flow bypass are required. Except for work to install/remove the temporary flow bypass facilities and work area containment, and the work needed to adjust the final configuration of the roughened channel fishway as per provision 36 below, all work on the project shall be done in isolation from the flowing water of the creek.

EQUIPMENT LIMITATIONS

13. Up to two hydraulic excavators (e.g. trackhoes) and a loader may operate from positions on the dry streambank or from positions within the contained (isolated) work area, to stage materials and construct the project. The hydraulic excavators shall be equipped with a thumb and be capable of grappling and individually placing large rocks and boulders.

14. Prior to the start of construction, equipment shall be pressure washed or steam cleaned so as to be free of accumulations of earth and petroleum products and free of invasive aquatic organisms. Care shall be taken to ensure that all areas of equipment that may harbor invasive aquatic organisms (such as zebra mussels, quagga mussels, etc.) are thoroughly cleaned.

15. If necessary, one hydraulic excavator may enter and operate within the wetted perimeter (i.e. the flowing water of the creek) as noted in provision 12 above. Otherwise, all equipment shall operate outside of the wetted perimeter).

16. If it is necessary for a trackhoe to operate from positions within the wetted perimeter of the creek (see provisions 12 and 15 above) the trackhoe shall use a biodegradable, non-toxic hydraulic fluid meeting the toxicity requirements of the U. S. Environmental Protection Agency and the U.S. Fish and Wildlife Service in the hydraulic system.

17. All equipment shall be in good working condition, well maintained condition and shall be inspected regularly to ensure that fuel, hydraulic fluid, lubricants, petroleum products, coolant or other harmful chemicals are not leaked to the shoreline, bed or water.



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TEMPORARY STREAM BYPASS

18. Stream flow shall be bypassed around the active work areas as described in the project narrative and shown on the project plans. Bypass facilities shall be of sufficient size to pass flows and debris reasonably expected to occur during the project. Changes to bypass facilities shall be done in a manner that does not interrupt instream flow outside of the work area.

19. If a pump is used, the inlet shall be screened to prevent entrainment of fish and the outlet shall be equipped with a diffusing device that ensures discharged water does not scour the stream bed or bank or cause downstream turbidity.

20. A diversion dam of sandbags and plastic sheeting or equivalent clean material shall be installed at the inlet to divert the entire flow through the bypass. A similar structure shall be installed at the downstream end of the bypass as necessary to prevent water from entering the work area.

21. The diversion of flow into the temporary bypass shall be done incrementally to allow for the capture and safe removal of the fish from the work area. Fish trapped inside of the work area shall be captured and released unharmed upstream or downstream from the project. (Permittee may request assistance from WDFW for this task. Assistance will be provided if personnel are available. Please provide as much advance notice as possible.)

22. Upon completion of the project, material used in the temporary bypass (other than rounded stream gravels) shall be removed from the site and the site restored to natural-like conditions.

DEWATERING AND WASTE WATER MANAGEMENT

23. Dewatering of work areas in the channel shall be done incrementally to allow for the capture and safe removal of fish. Fish trapped in the work areas shall be captured and released unharmed upstream or downstream from the work area.

24. During initial dewatering of work areas, if water is turbid or muddy, it shall be pumped to an upland area for disposal by infiltration to the soil. Subsequent pumping to remove water infiltrating through the stream gravels and containment dams may be discharged directly back to the stream provided that: a) a perforated sump chamber is installed away from the main work area to intercept the inflow, b) waste water containing raw concrete or other harmful materials is not reaching the sump chamber, c) water being pumped from the sump is clear (no suspended solids or turbidity), and d) state water quality standards are achieved. Lines discharging water to the stream shall be equipped with a diffusing device which shall prevent the scouring and dislodging of fine sediments from the stream bank or bed.

25. All turbid wastewater associated with the project shall be routed to an upland location and disposed of through infiltration.

CONSTRUCTION OF NEW FISH PASSAGE CHANNEL AND WATER DIVERSION

26. The construction of the roughened channel fishway shall be done under the direct supervision of the design engineer and/or engineer's designee with specific expertise and experience in construction of roughened channels for fish passage.

27. The channel shall be constructed with the designed mix of boulders, cobbles, gravels, sand and fines. Material conserved from channel excavation may be used to the extent it is suitable and meets the specifications. Channel material shall contain sufficient sand and fines (10% minimum) to ensure that low stream flows will not percolate through the streambed instead of flowing across the surface of the bed.

28. The streambed material shall be installed in lifts. During installation of each lift, cobble, gravel and fines shall be worked into the voids between the larger rocks to control permeability of the streambed and ensure stream flow remains on the surface of the bed. Water shall be used to help work fines into the voids of each lift until water remains



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on the surface of the streambed.

29. The installation of the channel material shall be done in a manner that maximizes bed roughness. Some of the largest particles of the bed material shall be exposed above the prevailing bed surface by 20-50% of their diameters to create a natural-like streambed.

30. A narrow, fish passable thalweg shall be defined in the roughened channel to ensure that low flows are sufficiently concentrated to ensure fish passage at low stream flow.

31. Embedded boulders shall be installed downstream of the roughened channel to dissipate the hydraulic energy transferred to the downstream channel, prevent channel degradation and ensure a good transition from the roughened channel to the natural channel downstream. Boulders shall be keyed into the bed up to 50% of their diameter to ensure stability at flood flows.

32. After the in-channel fishway has been constructed to its final shape and elevation, the bed shall be washed with water so as to leave a clean, natural-like streambed surface and wash fine materials down into the voids between the larger bed material and reduce permeability of the bed. Wastewater from this washing shall be captured and pumped to an upland area for disposal.

33. When the roughened channel has been completed, a flow of water shall be returned to the channel (flow should approximate fall low flow conditions) to confirm the performance of the fishway. The design engineer, in consultation with WDFW, shall evaluate the performance of the channel, channel permeability and fish passage conditions, and develop corrective actions as necessary.

34. Final adjustments of the in-channel fishway shall be done in the flowing water of the stream as necessary to ensure fish passable conditions are achieved. A trackhoe may enter and operate within the wetted perimeter if necessary to do this work, provided that the trackhoe is washed so as to be clean of accumulations of earth and petroleum products prior to entering the flowing water of the stream. Travel within the wetted perimeter shall be limited to the minimum amount necessary to accomplish the work.

SITE RESTORATION

35. The disturbed streambed areas shall be restored to a natural-like condition. All waste material and earth in excess of backfill needs shall be removed completely from the project site and disposed of in an approved upland location where it will not alter flood flows nor reduce floodplain storage.

36. All earth areas adjacent to the watercourse which have been exposed or disturbed by this project are to be graded to a stable slope, seeded with a suitable erosion control seed mix, and protected from erosion with biodegradable erosion control materials suitable for the location. (Examples of biodegradable erosion control materials include erosion control blankets, hydro-mulch with tackifier, weed-free straw mulch, etc.)

37. Woody native plants adapted to streambanks shall be established along all stream bank areas disturbed and denuded by this project. Transplants, cuttings (live stakes and live poles) and/or nursery stock of black cottonwood, gravelbar-type willows and redosier dogwood shall be planted immediately above the ordinary high water mark. Cuttings shall be planted deeply into the low flow water table.

MONITORING AND MAINTENANCE

38. The structural integrity and performance of the project shall be monitored annually for five years and the results presented to WDFW in an annual monitoring report. The monitoring reports shall include a summary of the inspections, data collected, photo-documentation of the project, and a brief assessment of the integrity and performance of the constructed channel.



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LOCATION #1:	Site Name: Ensign Ranch bridge on Big Cr , , WA					
WORK START:	August 15, 2014			WORK END:	November 15, 2014	
<u>WRIA</u>	<u>Waterbody:</u>			<u>Tributary to:</u>		
39 - Yakima (Above Naches R)	Big Creek			Yakima River		
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
	21	20 N	14 E	47.212986	-121.103625	Kittitas
<u>Location #1 Driving Directions</u>						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



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MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA. A minor modification to the required work timing means up to a one-week deviation from the timing window in the HPA when there are no spawning or incubating fish present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. Minor modifications do not require you to pay additional application fees or be issued a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you do not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Include the HPA number and a description of the requested change and send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. Do not include payment with your request. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you paid an application fee for your original HPA you must pay an additional \$150 for the major modification. If you did not pay an application fee for the original HPA, no fee is required for a change to it. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you do not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Include the HPA number, check, and a descriptor of the requested change. Send your written request and payment, if applicable, by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-110-340 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.



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A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the Washington Department of Fish and Wildlife HPA Appeals Coordinator, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee will conduct an informal hearing and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-110-350 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the Washington Department of Fish and Wildlife HPA Appeals Coordinator, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist

for Director

WDFW